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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/014,521	12/14/2001	Hiroshi Yabe	XA-9598	3563
181 7590 01/16/2008 MILES & STOCKBRIDGE PC 1751 PINNACLE DRIVE SUITE 500 MCLEAN, VA 22102-3833			EXAMINER RODRIGUEZ, PAMELA	
			ART UNIT 3683	PAPER NUMBER
			NOTIFICATION DATE 01/16/2008	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/014,521	YABE ET AL.	
	Examiner	Art Unit	
	Pam Rodriguez	3683	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2 and 5-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2 and 5-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/ are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on October 31, 2007 has been entered.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 5-8 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,269,198 to Fukushima.

Regarding Claim 5, Fukushima discloses a damper assembly (3/23) with a torque limiter 51 having all the features of the instant invention including: the damper assembly having a single torque transmission path between an input axis and an output axis (see column 2 lines 50-63), a friction torque limiter 51 between the input axis or the output axis (see Figure 2) and an airtight damper 3/23, wherein the friction torque limiter

is in series with the damper 3/23 (see Figure 2) and limiting the torque which can be transmitted through the damper (see column 4 lines 10-47), and wherein the friction torque limiter 51 is provided inside the damper 3/23 (see Figure 2) and includes a ring member 1 having opposite axial end portions (see element 1 in Figure 1 and its top and bottom outermost ends depicted therein) and a circumferential sidewall portion (see Figure 1 and the portion of element 1 located in between the aforementioned outermost ends) joining the opposite axial end portions, wherein the circumferential sidewall portion has a conical periphery (at surfaces 53) coaxial with a rotation axis of the damper assembly (wherein at least a portion of surfaces 53 would be co-axial with a rotation axis of the damper, i.e., the portion of the surface 53 located in the same plane as the rotation axis of the damper) providing a friction surface through which torque is transmitted in the friction path (see column 3 lines 65-68).

Regarding Claim 6, see Figures 1 and 3 of the reference.

Regarding Claim 7, see Claim 5 above and further note that the ring member 1 has a conical peripheral friction surface 53 which is frictionally engaged with an adjacent conical surface (i.e., the surface of balls 52) and through which torque is thereby transmitted in the friction path (see column 3 line 65 – column 4 line 30).

Regarding Claim 8, see Figures 1 and 3.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,680,918 to Reik et al.

Regarding Claim 2, Reik et al disclose a damper assembly (see Figure 1) with a torque limiter (friction clutch 4), said damper assembly having a single torque transmission path between an input axis (left side of Figure 1) and an output axis (right side of Figure 1) having all the features of the instant invention including: a friction torque limiter (3,52,3a,5a) between the input axis or the output axis (see column 7 lines 47 et al and column 8 lines 1-23) and an airtight damper 9 (see column 9 lines 5-15, i.e., inherently air tight in order to hold the lubricant in the damper chamber), wherein the friction torque limiter is in series with the damper and limiting the torque which can be transmitted through the damper (see Figure 1), and wherein the friction torque limiter is attached outside the airtight damper (see Figure 1 which shows that the torque limiter is outside of damper 9) and includes a torque transmission plate 5a fixed to a drive member of the damper 9, and a friction plate 5A held in frictional engagement with the torque transmission plate 5a by a press plate 52 having a radially outermost peripheral portion (see Figure 1 and the portion of element 52 through which bolt 61 passes therethrough) engaged with a radially inner peripheral portion (see Figure 1 and the

inner portion of element 4 through which bolt 61 extends therethrough) of a torque transmitting member 4 via bolt 61 and pressed toward the torque transmission plate 5a by a press spring 54 (see Figure 1).

However, Reik et al do not disclose that the press plate is spline-engaged with an inner peripheral portion of the torque transmitting member.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have constructed the press plate of Reik et al to be spline-engaged with the inner peripheral portion of the torque transmitting member as an alternate means of securing the attachment between the two mating parts. As long as some sort of connection is maintained between the press plate and the torque transmitting member, the means used to secure the two together is arbitrary.

6. Claims 9-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fukushima.

Regarding Claim 9, see Claim 5 above and note the plurality of friction plates 1.

However, Fukushima does not disclose that the friction plates are provided with a wet-type friction material.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have constructed the friction plates of Fukushima to be of the wet-type as a matter of design preference, dependent upon the desired type of torque to be transmitted. A wet-type friction material friction plate would merely be an alternate equivalent means of transmitting the torque throughout the system.

Regarding Claim 10, note that friction plates 1 are pressed by a spring 55

Regarding Claim 11, Fukushima discloses that the friction plates 1 are arranged with a torque transmission member 52 disposed therein.

However, Fukushima does not disclose that the transmission member is a torque transmission plate.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have substituted the balls of Fukushima for a torque transmitting plate as an alternate means of transmitting the torque throughout the system. Whether a ball structure or a plate type structure is used, as long as the torque is properly transmitted, the means used to do so is merely a matter of design choice.

Regarding Claim 12, Fukushima discloses that the friction plates 1 are engaged with a torque transmitting member 10 of the damper (see Figure 1) and the torque transmission means/plate is engaged with the drive plate 3.

However, Fukushima does not disclose that the engagement between these mating parts is a spline type of engagement.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have constructed the friction plates of Fukushima to be spline-engaged with the torque transmitting member and the torque transmission means (plate) to be spline-engaged with the drive plate as an alternate means of securing the attachment between the mating parts. As long as some sort of connection is maintained between the friction plates and the torque transmitting member and between the torque

transmission plate and the drive plate, the means used to secure the parts together is arbitrary.

Regarding Claim 13, Fukushima discloses that the friction plates 1 are engaged with a radially adjacent member 10.

However, Fukushima does not disclose that the engagement between the parts is a spline-type of engagement.

See the obviousness statement for Claim 12 above which applies here as well.

Response to Arguments

7. Applicant's arguments filed October 31, 2007 have been fully considered but they are not persuasive.

Firstly, applicant argues that independent Claims 5 and 7 have been amended to recite that the conical peripheral friction surface of the damper's ring is coaxial with a rotation axis of the damper assembly. Applicant contends that Fukushima's conical depressions 53 do not meet this new limitation.

In response to this, see the examiner's rejection of this limitation above and note how at least the portions of surfaces 53 located in the same plane as the rotation axis of the damper would meet this limitation of the claim.

Next, applicant argues that the surfaces of Fukushima's balls 52 are spherical, not conical, as alluded to by the examiner's office action.

The examiner contends that the depressions 53 are conical in shape and located on a circumferential sidewall portion of ring member 1 of Fukushima as rejected above.

These depressions constitute a conical periphery at least at those depression surfaces. Therefore, the claim limitations are still met.

Next, applicant argues that the new limitation added to Claim 9 concerning the friction plates being made of a wet-type friction material is not disclosed in Fukushima. Element 1 of the reference represents an input case and evidently does not meet the claimed friction plates provided with a wet-type friction material.

In response to this, see the examiner's new rejection to this limitation above. The examiner contends that constructing the friction plates to be provided with a wet material is merely a design choice. And as long as torque is limited through the damper, the type of friction plate used to perform this function is arbitrary.

Next, applicant argues that the torque limiting effect in Fukushima is provided by an arrangement of cooperating conical depressions and spherical balls and thus, Claim 9 as amended, distinguishes patentably from Fukushima.

While applicant is correct that Fukushima provides torque limiting in a different manner than that of applicant, the claim language is at issue here. And with regards to Claim 9, applicant merely requires the same structural components as provided in Fukushima with the addition of a wet-type friction plate, which is merely an alternate equivalent type of plate. Therefore, at least when the claims are given their broadest reasonable interpretation, the rejections presented to this extent are feasible.

Next, applicant argues that, with respect to Claim 2, the portion of Reik's element 52 through which bolt 61 passes is not a radially outermost portion of element 52.

Contrary to applicant's arguments, the examiner still contends that the portion of element 52 in which bolt 61 passes therethrough is still readable as a radially outermost portion. In other words, this portion of element 52 would extend at the outermost end of the structure.

And lastly, applicant argues that the substitution of a spline connection in place of the bolt connection of Reik et al would eliminate the bolted connection of leaf springs 60 and is therefore contraindicated.

In response to this, the examiner still contends that a spline connection would merely be an alternate equivalent means of attaching the press plate and the torque transmitting member. As long as this connection is made, the type of connection used is merely a matter of design preference. As for the leaf springs 60, the substitution of a spline connection for the riveted connection would merely provide an alternate means of attaching the leaf springs to the assembly of Reik or provide a completely alternate type of connection altogether which would not be beyond the realm of one of ordinary skill in the art to employ.

It is for these reasons that the rejections have been maintained.

Conclusion

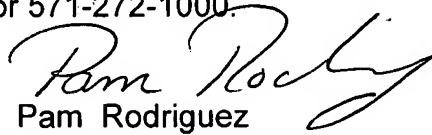
8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pam Rodriguez whose telephone number is 571-272-7122. The examiner can normally be reached on Tuesdays 5:30 AM -4 PM and Wednesdays 5 AM -11 AM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rob Siconolfi can be reached on 571-272-7124. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Pam Rodriguez
Primary Examiner
Art Unit 3683
1/8/08

PR
01/08/08